Frequently Asked Questions About The Caspian Tern Management Plan/Final Environmental Impact Statement January 2005

Why was a Caspian tern management plan and Final Environmental Impact Statement (EIS) developed?

We developed the plan to more effectively manage terns in a way that reduces their predation of threatened and endangered salmon and steelhead smolts while conserving Caspian terns in the Columbia River estuary and throughout the West. The plan was required as part of a lawsuit settlement agreement between the National Audubon Society, Defenders of Wildlife, Seattle Audubon Society and the American Bird Conservancy and the U.S. Fish and Wildlife Service and U.S. Army Corps of Engineers on Caspian tern management in the Columbia River estuary.

Who developed the management plan/EIS and what is its official title?

It was developed by three Federal agencies: the U.S. Fish and Wildlife Service (lead), NOAA Fisheries and the U.S. Army Corps of Engineers. The plan's official name is "Caspian Tern Management to Reduce Predation of Juvenile Salmonids in the Columbia River Estuary: Final Environmental Impact Statement."

Why did three agencies work on it?

All three agencies committed to collaborating on the plan/EIS during the settlement of the lawsuit. Each of the agencies has responsibilities under various Federal laws that affect the management of Caspian terns and/or salmon. The U.S. Fish and Wildlife Service is responsible for Caspian terns under the Migratory Bird Treaty Act. NOAA Fisheries is responsible for salmon that are protected under the Endangered Species Act. The U.S. Corps of Engineers owns East Sand Island and has obligations to manage this and several other islands with potential tern-nesting habitat in the Columbia River estuary.

Why is it necessary to manage Caspian terns?

There is a concentration of nesting terns on East Sand Island, with approximately 70 percent of the Pacific Coast/Western regional population nesting at this single location. A tern colony of this size has never before been documented. The concentration of terns on East Sand Island results in consumption of a large number of federally protected salmon and steelhead and makes the birds vulnerable to large losses due to storms, predators, human disturbance and disease.

Why do so many Caspian terns nest on East Sand Island?

Caspian terns have concentrated in the Columbia River estuary because historic nesting sites have been lost elsewhere in the Pacific Coast/Western region and human-created dredge-spoil islands in the estuary offered stable nesting habitat close to abundant supplies of fish. The large, concentrated runs of salmon smolts (mostly hatchery-reared) offer a unique and stable food supply sufficient to support this large number of birds.

What has been done so far to help reduce Caspian tern predation on threatened Columbia River salmon smolts?

In 1986, about 1,000 Caspian terns began nesting on Rice Island, located 15 miles upstream from the mouth of the Columbia River. By 1998, the colony had grown to include about 9,000 breeding pairs. In 1999 and 2000, management agencies and researchers worked together to relocate the Rice Island tern colony downstream to East Sand Island, closer to the Pacific Ocean, where, in addition to salmon smolts, many other marine fish are available for terns to eat. The colony relocation from Rice Island to East Sand Island significantly changed the diet of nesting terns and reduced the number of salmon smolts eaten by terns by 52 percent.

Did this relocation effort impact terns in the estuary?

No. Terns nested on East Sand Island within the first year of the relocation project. By 2001, the entire tern colony relocated to East Sand Island and in 2002, the tern colony increased to nearly 10,000 pairs. Additionally, the terns' nesting success was very high compared to that observed when nesting on Rice Island.

Are Columbia River salmon still threatened even though adult salmon have been returning at record levels in recent years?

Yes. While a number of salmon runs have exhibited marked improvement in recent years, it will take many years of strong returns to show that wild Columbia River salmon are truly recovering. Summer Chinook are returning at levels not seen since the 1950s and spring chinook adult returns are expected to be the second largest since counting began in 1938. The largest steelhead return on record occurred in 2002. These are stocks and age classes that out-migrated past the Rice Island tern colony when tern predation was at its peak in 1999 and 2000. Favorable ocean conditions are most likely contributing to the strong returns, but continued conservation efforts, such as improving smolt survival through dams, barging smolts around dams and habitat enhancement will also play a role in salmon recovery.

Why is additional management necessary?

Managers are concerned that Caspian terns still eat a substantial number of listed salmon and steelhead smolts in the Columbia River estuary. Reducing this predation complements many other efforts that are underway to help recover endangered salmon throughout the Columbia River Basin. Dispersing some of the birds off East Sand Island may also benefit the Caspian tern population in the Pacific Coast Region by reducing their vulnerability to catastrophic events such as disease, storms, predators and human disturbance. Additionally, predicted poor ocean conditions are expected to result in fewer marine fish, causing terns to focus their diet more heavily on juvenile salmon in the estuary.

What are the details of the management plan/EIS?

The plan calls for redistributing the tern population by creating or enhancing nesting habitat at seven alternate sites in Washington, Oregon and California and reducing nesting habitat on East Sand Island as the alternate sites are developed.

How will you reduce nesting habitat on East Sand Island?

Habitat reduction on East Sand Island will be achieved by allowing vegetation to grow in the current nesting area, which is now maintained by removing vegetation and clearing the smaller managed tern nesting area at the beginning of each breeding season.

How much habitat will be created or enhanced?

For every acre of occupied tern nesting habitat removed on East Sand Island two acres will be created or enhanced elsewhere. In all, about 8 acres of nesting habitat will be created or enhanced elsewhere and 1 to 1.5 acres will be maintained on East Sand Island. Based on the average number of nesting pairs – approximately 9,175 in the Columbia River estuary for 2000 through 2004 – about 6,000 to 6,675 breeding pairs will be dispersed to alternate sites while about 2,500 to 3,125 breeding pairs will continue to use East Sand Island.

How long will this take?

The redistribution is expected to be completed by 2010.

How much will it cost?

The project is expected to cost $2,422,093 in first-year construction and habitat enhancement costs. Monitoring costs will range from $100,000 to $269,000 a year, depending on alternate site development and tern nesting activity.

Who will pay for it?

The project will be funded by the cooperating federal agencies. Complete implementation is expected to occur by 2010. Timing of actions at specific alternate sites will phased in, depending on available funding for habitat enhancement.

Where are the sites and how large are they projected to be?

The seven sites are:

Washington:

Dungeness National Wildlife Refuge in Clallam County, 1 acre

Oregon:

Crump Lake in Lake County, 1 acre

Summer Lake Wildlife Area in Lake County, 1.5 acres

Fern Ridge Lake in Lane County, 1 acre

California:

Brooks Island, Central San Francisco Bay in Contra Costa County, 2 acres

Hayward Regional Shoreline in Alameda County, 0.5 acre

Don Edwards/San Francisco Bay NWR in Alameda County, 0.5 to 1 acre

Who owns these sites and are terns already nesting there?

All of the sites are publicly owned, either by the federal government or a state or county government and most have some terns currently using them or did in the past.

How were these sites selected?

The Service initially completed a feasibility study in which 77 possible sites, from San Diego Bay to Puget Sound and east to Idaho and Nevada, were examined. The list of alternate sites was refined during the EIS scoping process in spring 2004, resulting in the selection of the final seven sites.

What makes a good site?

A good site is typically an island with bare sand or exposed gravel, free of human disturbance, with few or no predators, requires little or no habitat enhancement and has an abundance of food for terns. Nesting sites need not be large. Terns nest closely together in dense colonies and several thousand birds can successfully nest together on only an acre or two.

Did you work with others in selecting the sites?

Yes. We met with landowners and representatives from state and tribal governments, held a series of public meetings in Washington, Oregon and California and had two public comment periods.

Are the agencies trying to relocate the entire colony from East Sand Island?

No. Caspian terns are native to the Columbia River estuary and East Sand Island will continue to be managed as an important tern colony. Our preferred alternative proposes to maintain 1 to 1.5 acres of nesting habitat on the island for approximately 2,500 to 3,125 breeding pairs. Based on historic survey information, colonies at alternate sites are projected to range from 100 to 3,500 breeding pairs in Washington, 5 to 300 pairs in Oregon and 100 to 1,500 pairs in California.

Are the terns from East Sand Island expected to successfully relocate to the sites?

Yes. Many of the 7 sites already have nesting terns. Caspian terns are highly social birds that nest in colonies. Social attraction techniques such as tern decoys and recorded tern sounds will

be used if necessary to attract terns to newly created nesting habitat. Social attraction techniques have been successful in establishing or re-establishing colonies of Caspian terns and other tern species.

How is the redistribution effort expected to affect the terns?
Biologists estimate that under the preferred alternative, luring terns to other breeding sites will aid in reducing the potential for a catastrophic event (e.g. storms, predators, disease) to impact of very large percentage of the regional population. More diverse sites distributed throughout the region will also provide a stable network of nesting habitat under variable environmental conditions compared to a single site with the majority of the regional population. The redistribution effort could temporarily affect tern nesting success and possibly the number of terns in the region, but tern numbers are expected to stabilize over time. While the stabilized number of birds could possibly be lower than the current regional population, it is estimated to be well above the approximately 6,200 pairs observed in the late 1970s and early 1980s.

Will additional sites just spread out the problem of terns eating young salmon?
No. Restoring, creating and enhancing nesting habitat for Caspian terns is designed to accommodate smaller colonies at each site. This will reduce the potential impact to individual salmon runs at alternate sites because the number of birds feeding on salmon at each site will be low and the number of fish species they will be eating will be more varied.

Are terns found elsewhere along the Pacific Coast?
In recent years, terns were documented to have nested on about 60 sites scattered throughout the Pacific Coast region, including Alaska. In Washington, breeding activity was first recorded in the 1950s at small coastal colonies in Grays Harbor. The Grays Harbor area once supported the largest colonies of breeding terns in the region. In Oregon, breeding terns were historically found in shallow lakes and reservoirs of the Klamath Basin and the Great Basin. In 1940, fewer than 1,000 pairs nested throughout Oregon. However, in recent years tern numbers in Oregon have averaged about 9,000 pairs, primarily in the Columbia River estuary. A small colony of terns also nests on Crescent Island in the mid-Columbia River near Walla Walla, Washington. In California, the breeding Caspian tern population appears to have been relatively stable in the past 30 years. Throughout this period, numbers and locations of breeding sites have fluctuated and shifted, with the number of terns ranging from about 1,000 to 2,600 pairs.

What's the next step?
A decision on the management plan/Final Environmental Impact Statement (EIS) will be made by the U.S. Fish and Wildlife Service and the U.S. Army Corps of Engineers no sooner than 30 days after the notice of availability of the Final EIS is published in the Federal Register. The decision will be documented in a Record of Decision, which will identify implementation responsibilities for the management plan/EIS.

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